

## **REMARKS**

The present Amendment is in response to the Office action. Claim 1, 4, 7, 9, 14, 19, and 26 are amended, claims 5 and 25 are canceled, and new claims 27 and 28 are added. Claims 1-4, 6-24, and 26-28 are now pending, of which claims 1, 9, 14, and 19 are independent.

Reconsideration of the application is respectfully requested in view of the above amendments to the claims and the following remarks. For the Examiner's convenience and reference, Applicants' remarks are presented in the order in which the corresponding issues were raised in the Office Action.

### **I. General Considerations**

Applicants respectfully note that the remarks herein do not constitute, nor are they intended to be, an exhaustive enumeration of the patentable distinctions between any cited references and the invention, example embodiments of which are set forth in the claims of this application. Rather, and in consideration of the fact that various factors make it impractical to enumerate all the patentable distinctions between the invention and the cited art, as well as the fact that the Applicants have broad discretion in terms of the identification and consideration of the base(s) upon which the claims distinguish over the cited references, the distinctions identified and discussed herein are presented solely by way of example. Consistent with the foregoing, the discussion herein is not intended, and should not be construed, to prejudice or foreclose contemporaneous or future consideration by the Applicants, in this case or any other, of: additional or alternative distinctions between the invention and the cited references; and/or, the merits of additional or alternative arguments.

Applicants note as well that the remarks, or a lack of remarks, set forth herein are not intended to constitute, and should not be construed as, an acquiescence, on the part of the Applicants: as to the purported teachings or prior art status of the cited references; as to the characterization of the cited references advanced by the Examiner; or as to any other assertions, allegations or characterizations made by the Examiner at any time in this case. Applicants reserve the right to challenge the purported teachings and purported prior art status of the cited references at any appropriate time.

## **II. Claim Rejections Under 35 U.S.C. § 102**

The Examiner has rejected claims 1, 2, 6, 7, 9, 10-12, 14-16, 19, 20, and 24-26 under 35 U.S.C. § 102(e) as being anticipated by U.S. Patent No. 4,276,548 to *Lutz*. Applicants respectfully traverse the rejection.

Applicant respectfully notes that a claim is anticipated under 35 U.S.C. § 102(a), (b), or (e) only if each and every element as set forth in the claim is found, either expressly or inherently described, in a single prior art reference. Further, the identical invention must be shown in as complete detail as is contained in the claim. Finally, the elements must be arranged as required by the claim. *Manual of Patent Examining Procedure* (“MPEP”) § 2131.

Claim 1, as amended, recites “a demultiplexer arranged to receive a clock signal from the phase locked loop, the demultiplexer being configured to convert [a] serial data signal to a parallel data signal based on the clock signal.” In contrast, the speed meter of *Lutz* receives microwave energy reflected from a moving object to determine the moving object’s speed and therefore lacks a “demultiplexer...configured to convert [a] serial data signal to a parallel data signal based on the clock signal,” as recited in amended claim 1.

Claim 9, as amended, recites “a controller chip having a phase locked loop that is adapted to operate in a hunting mode in which the phase locked loop briefly asserts a synchronization signal when a hunting frequency passes through a data signal frequency corresponding to a rate of data encoded in a data signal...” In contrast, the phase locked loop of *Lutz* hunts for a frequency of a coherent component of a difference signal that is proportional to the relative velocity of an object, such as a thrown baseball. *See Lutz*, col. 2, lines 46-57. The difference signal is generated by mixing energy reflected from the object with non-reflected energy. *See id.* col. 2, lines 49-51. Thus, contrary to what is required by amended claim 9, the difference signal of *Lutz* does not have any data encoded therein and the frequency of a coherent component of the difference signal does not correspond to “a rate of data encoded” therein.

Claim 14, as amended, recites “sampling data from the data signal; extracting a clock signal from the data signal; and using the extracted clock signal as a reference for converting the sampled data into synchronized data to be read by the host device.” In contrast, *Lutz* is directed to a microwave speed meter and therefore none of the foregoing limitations is taught or suggested by *Lutz*.

Claim 19, as amended, recites “a timing circuit adapted to measure a period of time that the synchronization signal is asserted using at least a capacitor arranged to discharge when the synchronization signal is asserted and to charge when the synchronization signal is not asserted.” The Examiner identified a capacitor 318 in *Lutz* as the claimed capacitor. *See Office action*, p. 9. However, according to *Lutz*, “A predetermined time after synchronization is achieved, the potential developed across capacitor 318 will rise to a level which will trigger timer 18” (col. 8, lines 19-22), and when the PLL is unable to achieve synchronization an operational amplifier 300 and diode 312 “will prevent resistor 314 from developing a significant potential across the capacitor” (col. 8, lines 1-7). Thus, contrary to what is required by amended claim 19, the capacitor 318 of *Lutz* is arranged to charge when the PLL is synchronized and to be prevented from charging when the PLL is unsynchronized.

In light of the foregoing, Applicants respectfully submit that amended claims 1, 9, 14, and 19 are patentable over *Lutz*. Accordingly, Applicants respectfully request withdrawal of the rejection of claims 1, 9, 14, and 19, and corresponding dependent claims 2, 6, 7, 10-12, 15, 16, 20, 24, and 26. Moreover, the cancelation of claim 25 renders its rejection moot.

### **III. Claim Rejections Under 35 U.S.C. § 103**

The Examiner has rejected claims 4, 5, and 21 under 35 U.S.C. § 103 as being unpatentable over *Lutz* as applied to claims 1 and 14 above and further in view of “Transistors” at [www.electronics-tutorials.com](http://www.electronics-tutorials.com) (“*Transistors Tutorial*”); rejected claim 17 as being unpatentable over *Lutz* as applied to claim 14, and further in view of U.S. Patent No. 6,275,144 to *Rumbaugh*; and rejected claims 8, 13, 18, 22, and 23 as being unpatentable over *Lutz* as applied to claims 7, 12, 14, 19, and 22, respectively, and further in view of “Phase-Locked Loop Protocol Scheme for a Synchronization Field,” IBM Technical Disclosure Bulletin, May 1990 (“*IBM TDB*”). Applicants respectfully traverse the rejection.

Claims 4, 8, 13, 17, 18, 21, 22, and 23 variously depend from one of claims 1, 9, 14, and 19. As such, each incorporates a corresponding one of the limitations discussed above in section II. *Transistors Tutorial*, *Rumbaugh*, and *IBM TDB* are relied on for their purported teachings relative to certain dependent claim limitations and have not been shown to cure the deficiencies of *Lutz* discussed above in section II. Therefore, Applicants respectfully submit that claims 4, 8, 13, 17, 18, 21, 22, and 23 are allowable over the cited art at least by virtue of their dependence

from one of allowable claims 1, 9, 14, and 19 and the rejection under section 103 should be withdrawn. Moreover, the cancelation of claim 5 renders its rejection moot.

**IV. New Claims 27 and 28**

By this paper, Applicants have added new claims 27 and 28. Support for new claim 27 may be found at least in paragraphs [0002] through [0006] and paragraph [0023]. Support for new claim 28 may be found at least in paragraphs [0039] and [0040]. Applicants submit that new claims 27 and 28 are allowable at least by virtue of their dependence from allowable claims 9 and 19, respectively.

**V. Charge Authorization**

The Commissioner is hereby authorized to charge payment of any of the following fees that may be applicable to this communication, or credit any overpayment, to Deposit Account No. 23-3178: (1) any filing fees required under 37 CFR § 1.16; and/or (2) any patent application and reexamination processing fees under 37 CFR § 1.17; and/or (3) any post issuance fees under 37 CFR § 1.20. In addition, if any additional extension of time is required, which has not otherwise been requested, please consider this a petition therefor and charge any additional fees that may be required to Deposit Account No. 23-3178.

### **CONCLUSION**

In view of the foregoing, Applicants respectfully submit that each of the pending claims 1-4, 6-24, and 26-28 is in condition for allowance. Therefore, reconsideration of the rejections is requested and allowance of those claims is respectfully solicited. In the event that the Examiner finds remaining impediment to a prompt allowance of this application that may be clarified through a telephone interview, or which may be overcome by an Examiner's Amendment, the Examiner is requested to contact the undersigned attorney.

Dated this 26<sup>th</sup> day of May, 2009.

Respectfully submitted,

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